



**Title:** Devices and Methods of Detecting Movement Between Media and Probe Tip in a Probe Data Storage System  
**Application No.:** 09/465,592      **Attorney:** Michael Robbins  
**Inventors:** Culver et al.      **Docket No.:** NANO-01000US0  
**Filing date:** Dec. 17, 1999      **REPLACEMENT SHEET**

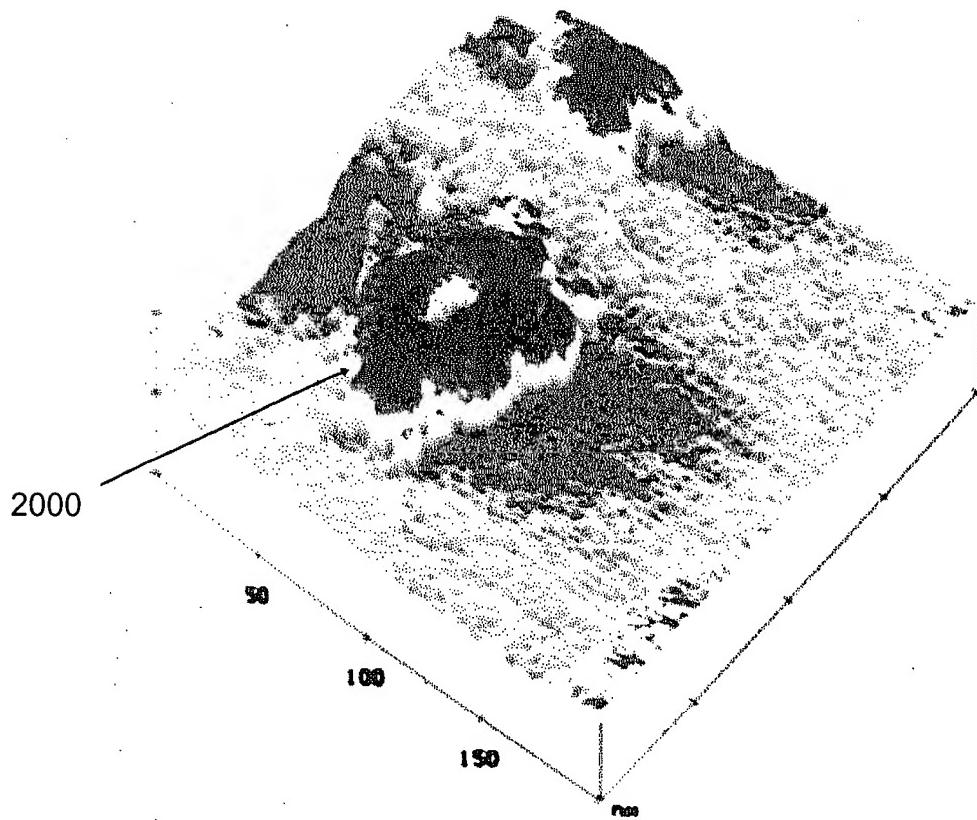


Figure 20

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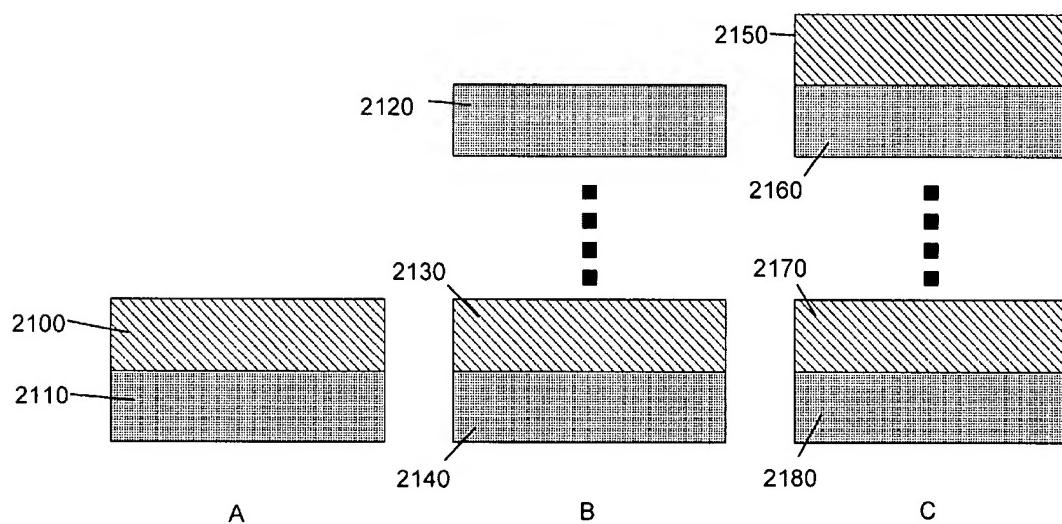


Figure 21

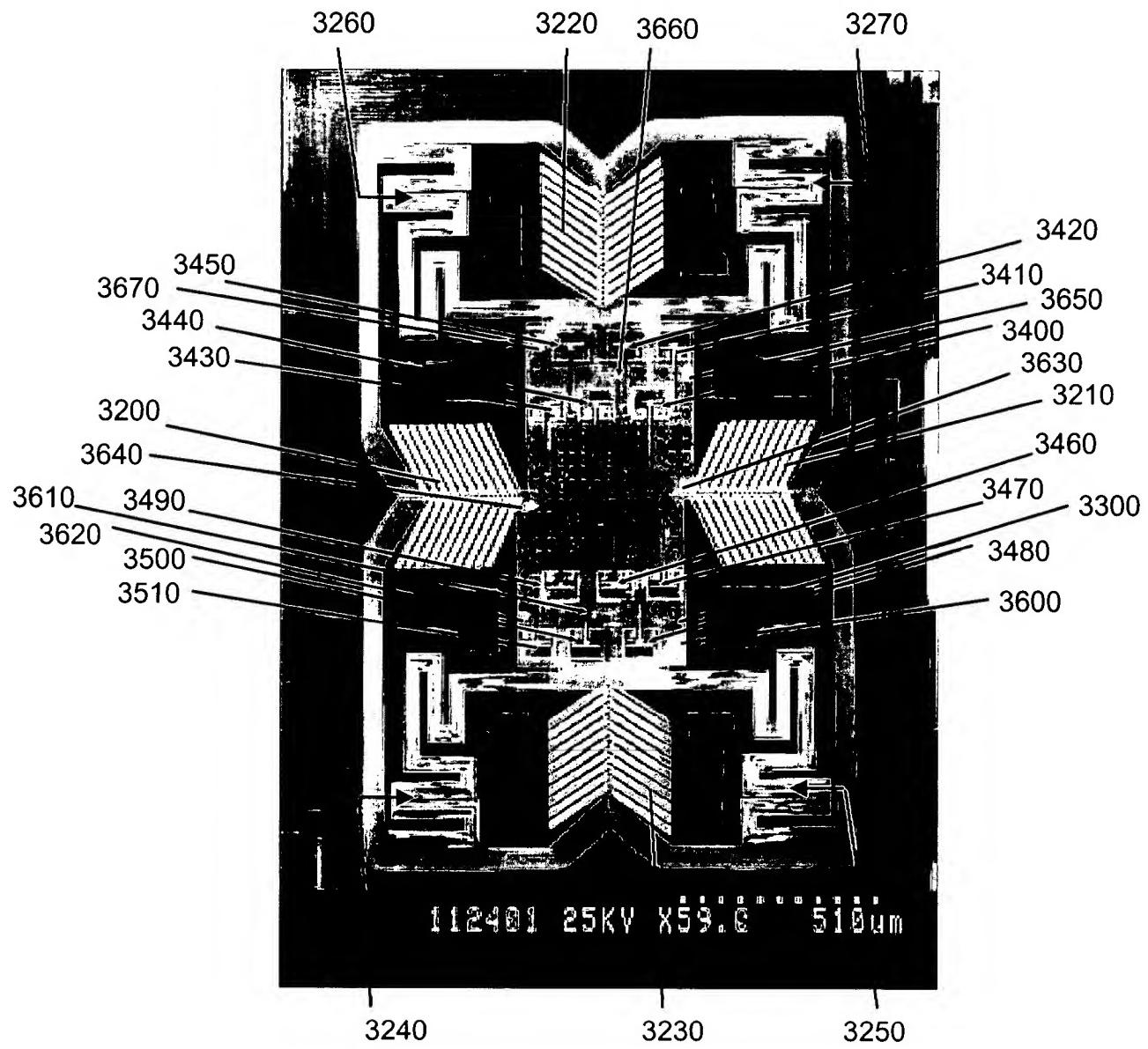


Figure 30

**Title:** Devices and Methods of Detecting Movement Between Media and Probe  
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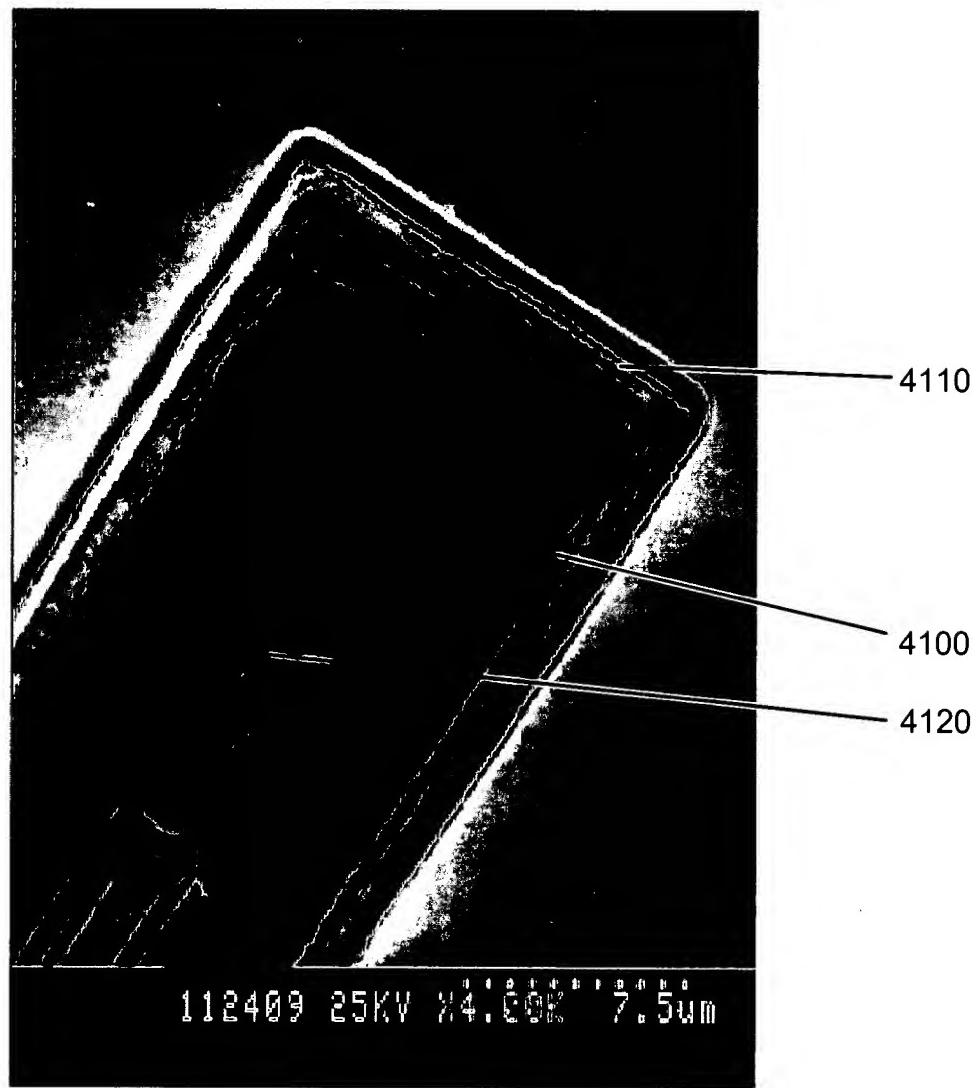


Figure 31

**Title:** Devices and Methods of Detecting Movement Between Media and Probe  
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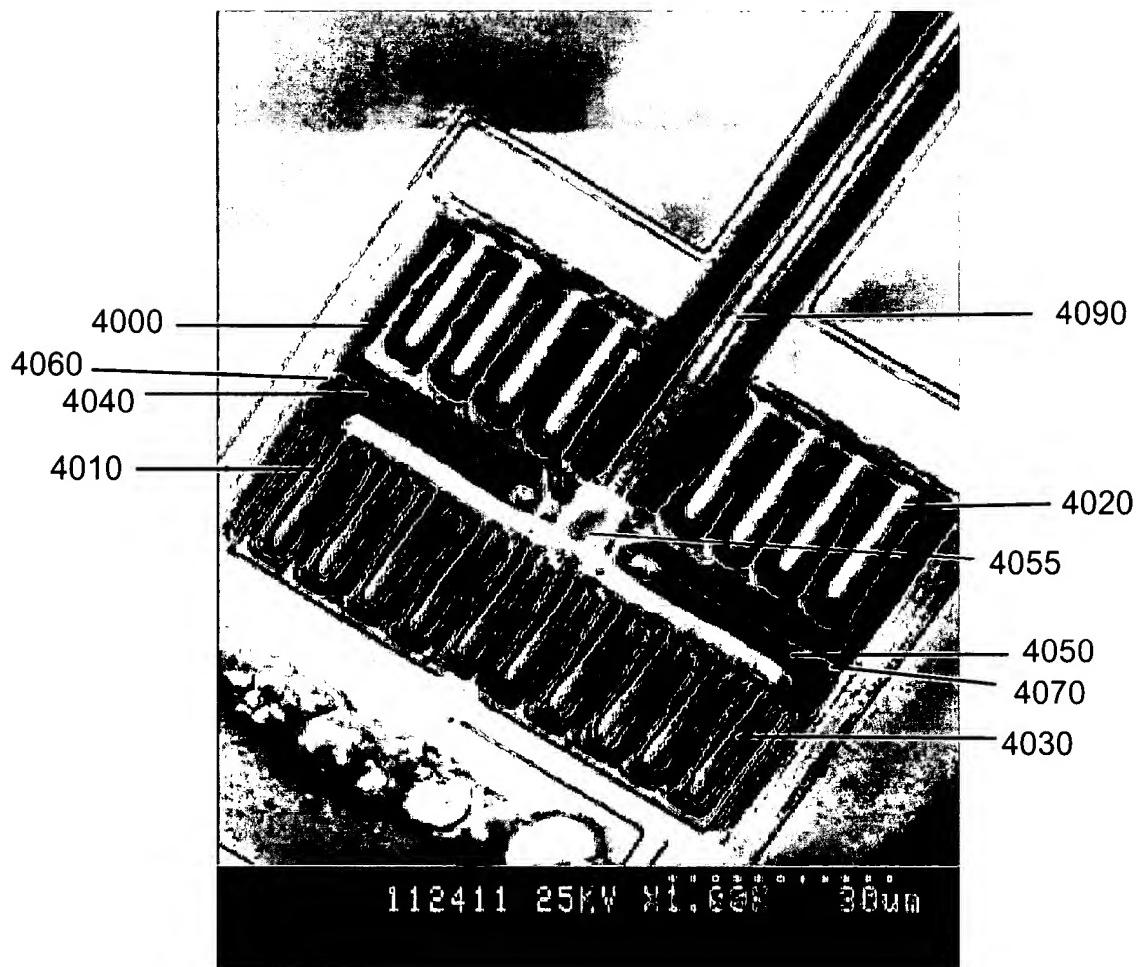


Figure 32

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Figure 33

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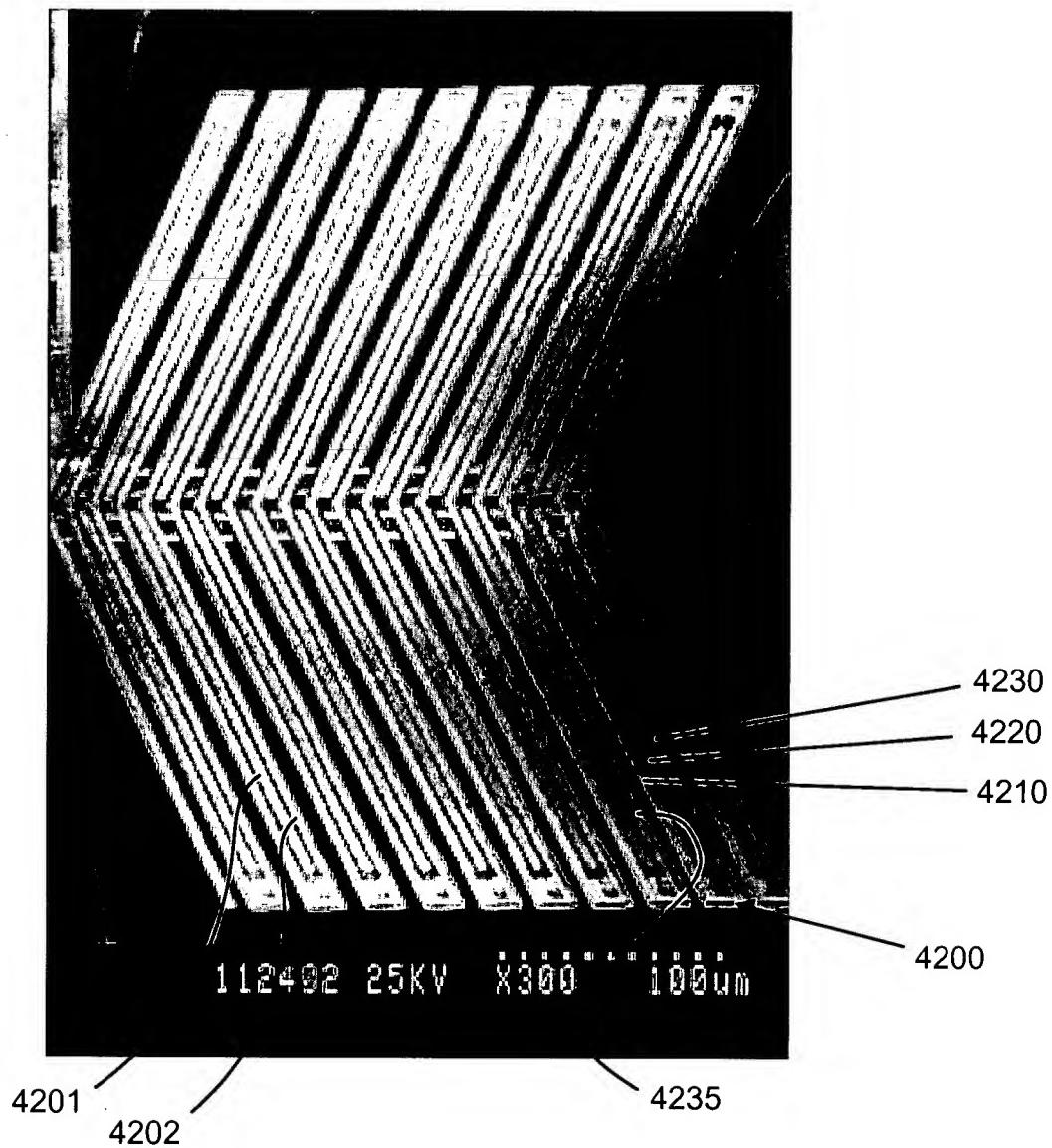


Figure 34A

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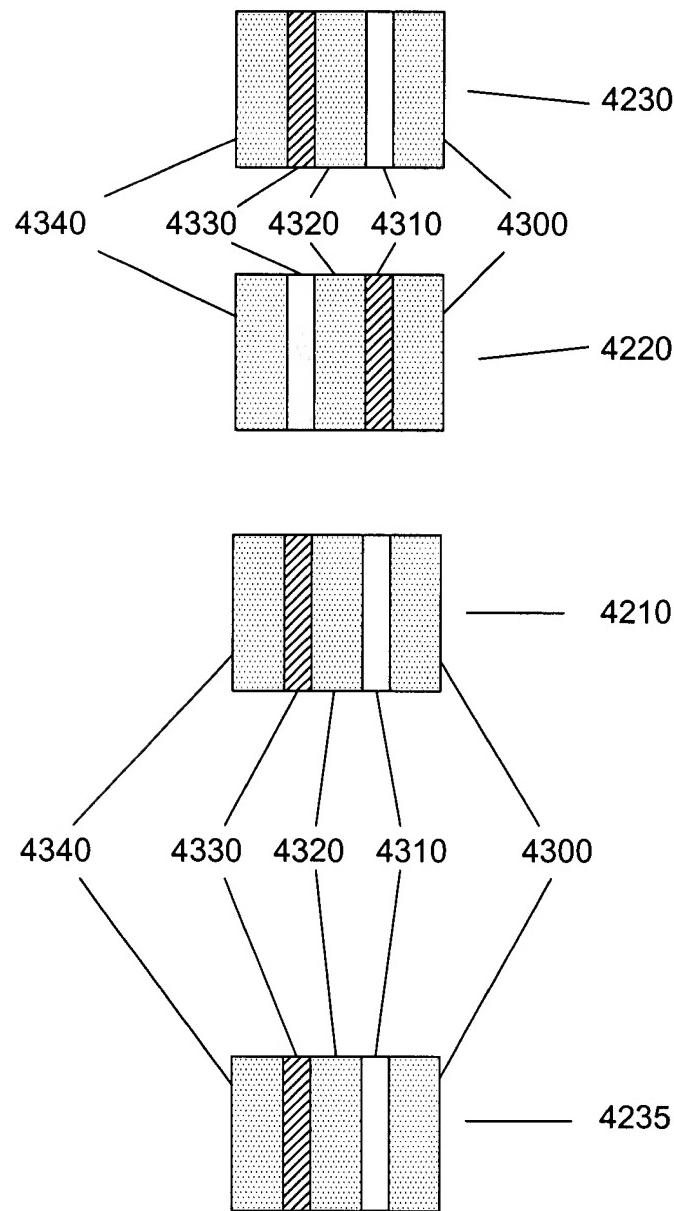


Figure 34B

**Title:** Devices and Methods of Detecting Movement Between Media and Probe  
**Tip in a Probe Data Storage System**  
**Application No.:** 09/465,592      **Attorney:** Michael Robbins  
**Inventors:** Culver et al.      **Docket No.:** NANO-01000US0  
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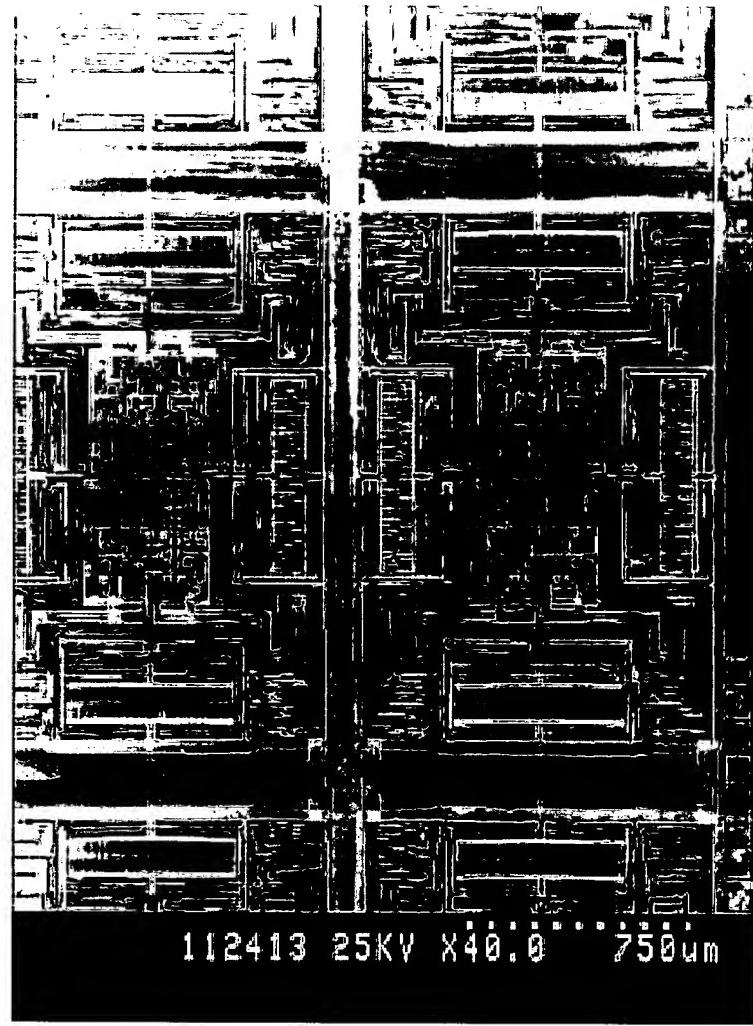


Figure 35

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**Tip in a Probe Data Storage System**  
**Application No.:** 09/465,592      **Attorney:** Michael Robbins  
**Inventors:** Culver et al.      **Docket No.:** NANO-01000US0  
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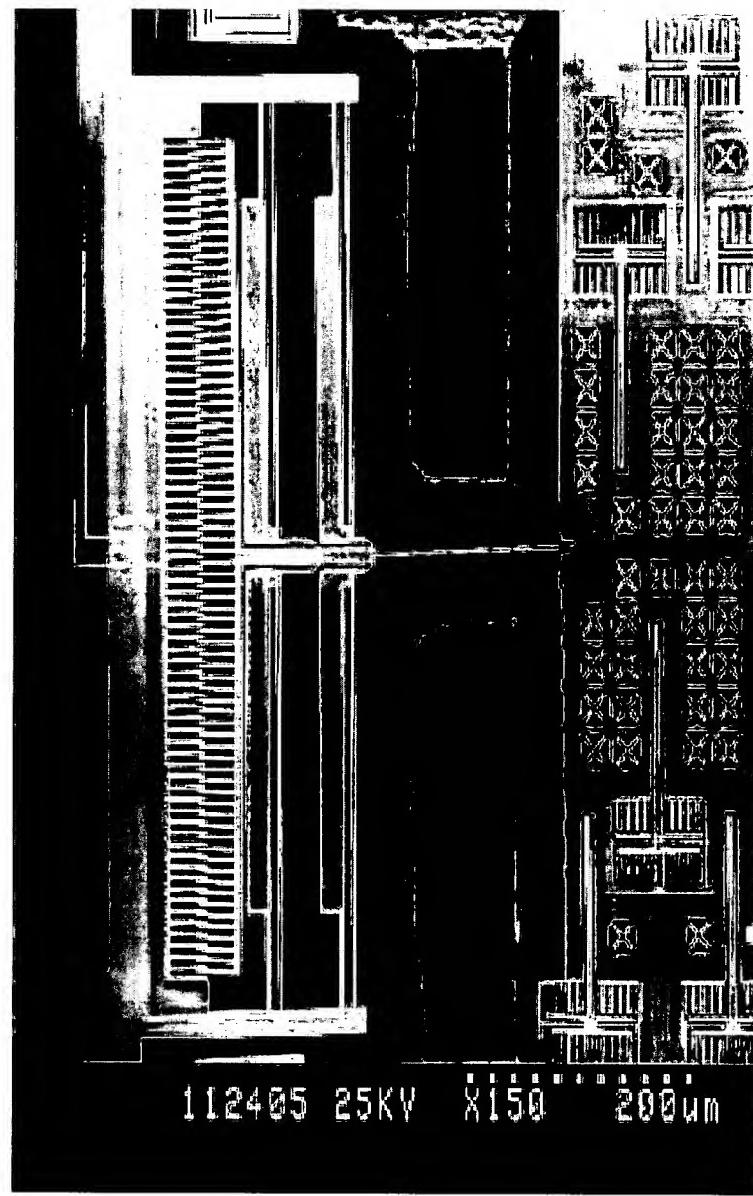


Figure 36

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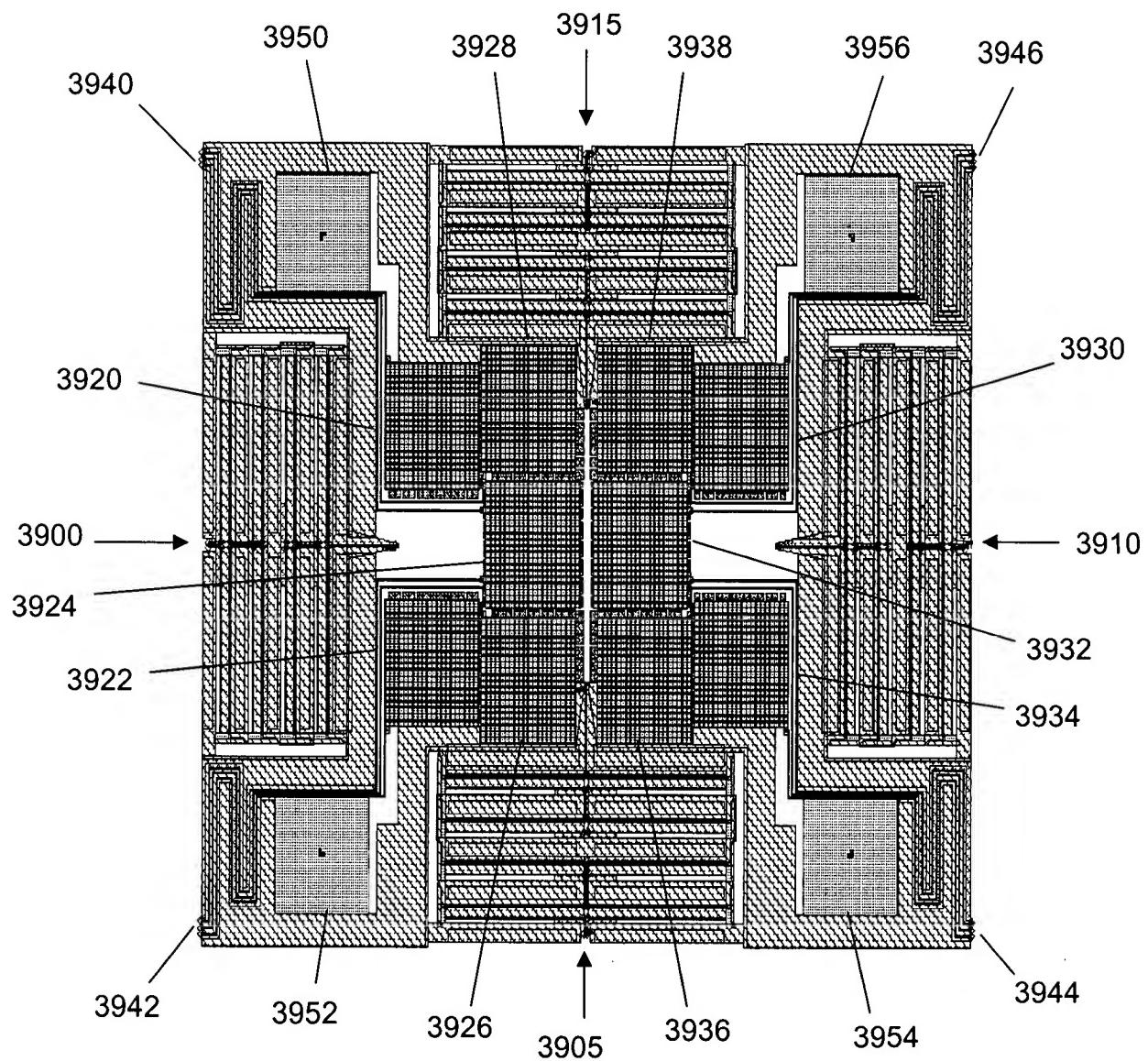


Figure 39

Title: Devices and Methods of Detecting Movement Between Media and Probe Tip in a Probe Data Storage System  
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Inventors: Culver et al. Docket No.: NANO-01000US0  
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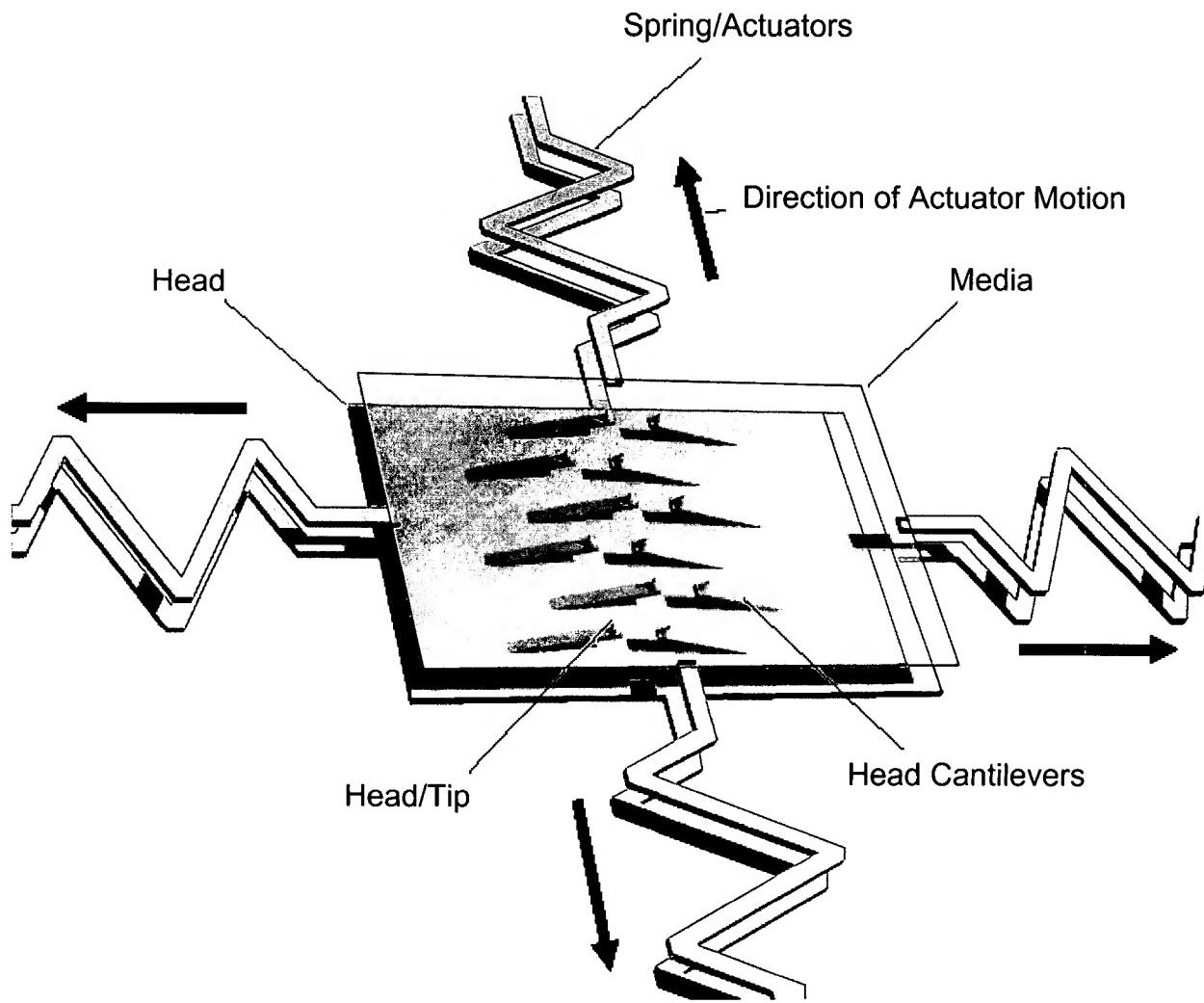


Figure 41

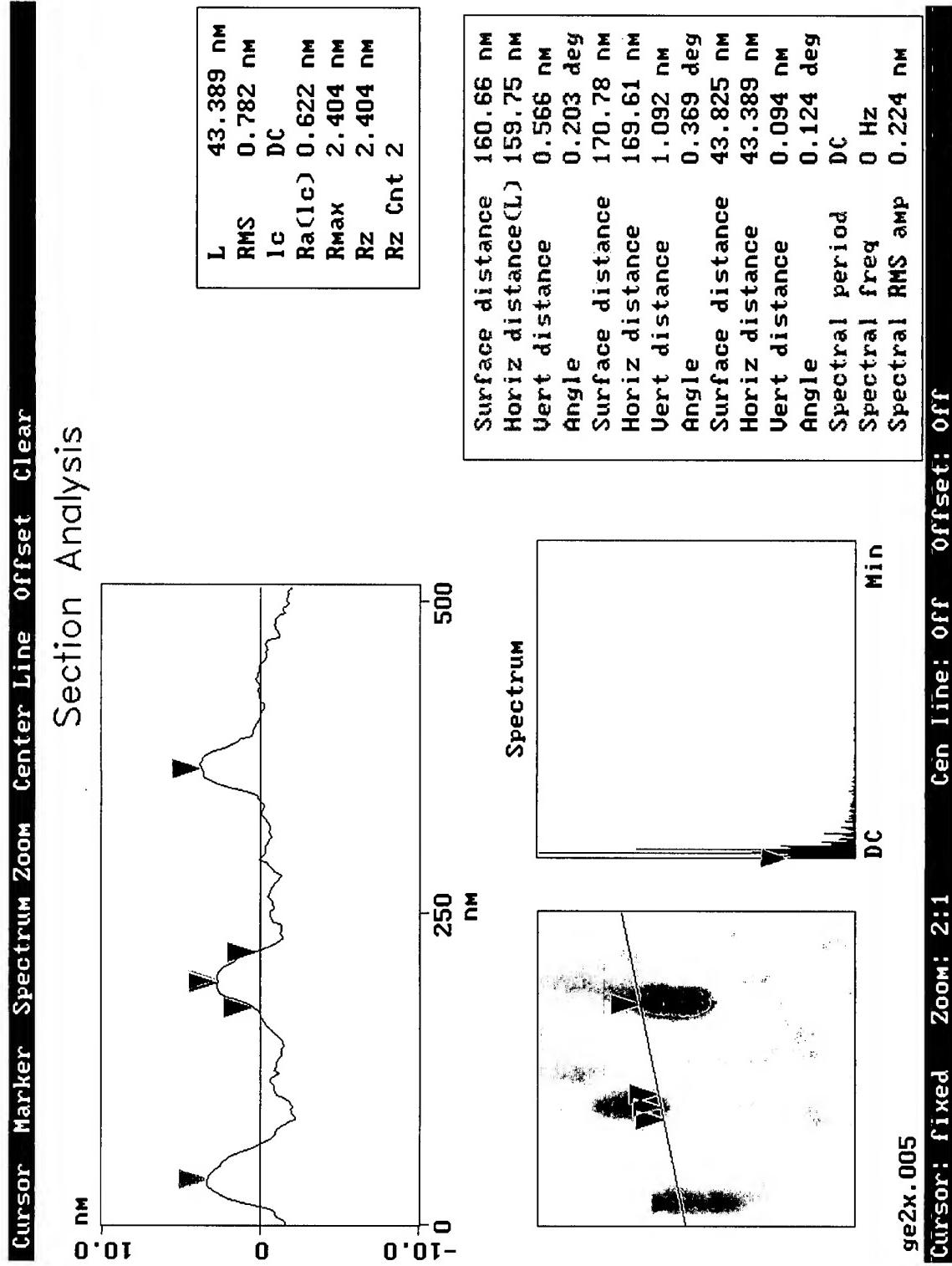


Figure 42A

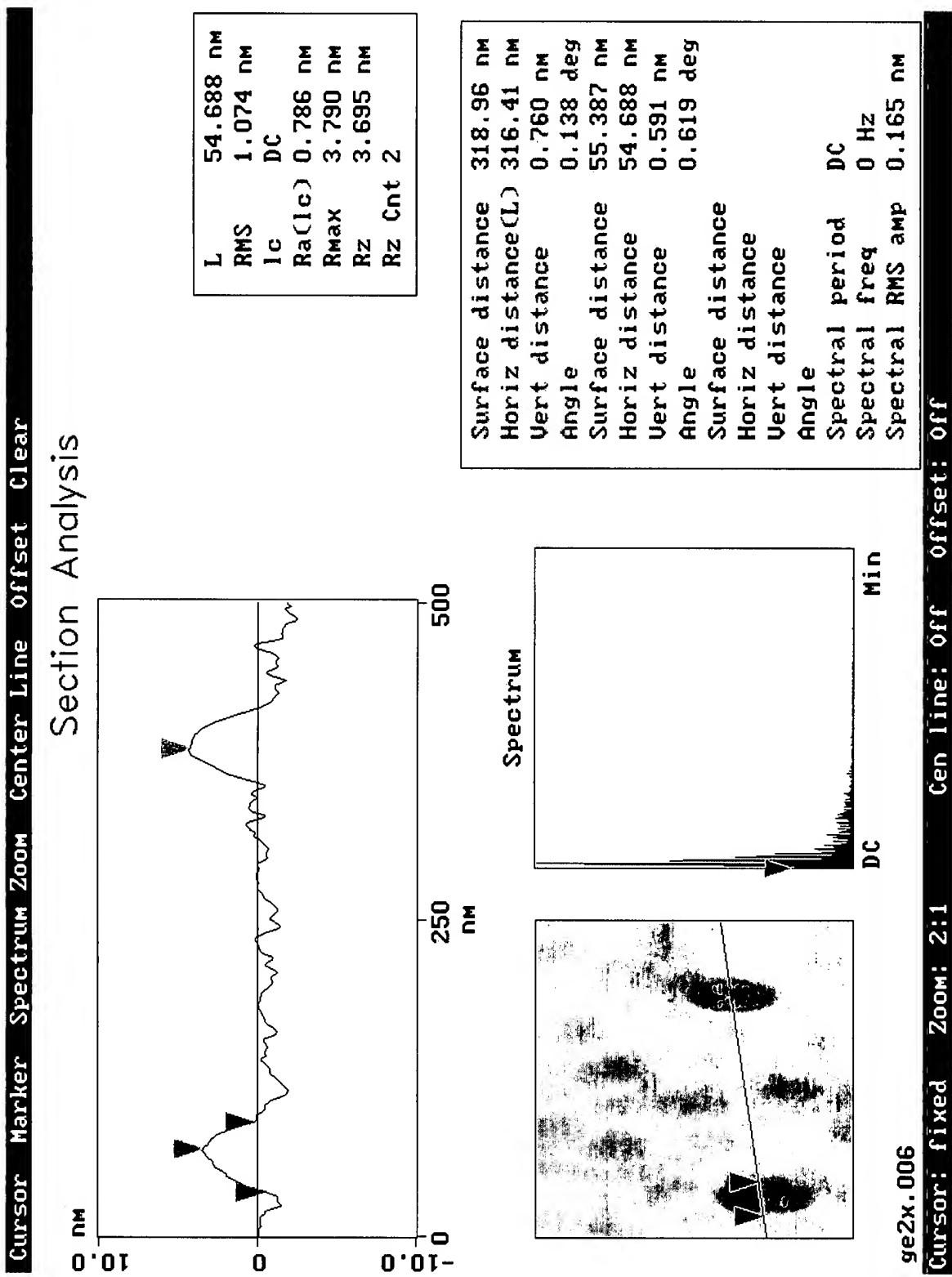


Figure 42B

Title: Devices and Methods of Detecting Movement Between Media and Probe  
Tip in a Probe Data Storage System  
Application No.: 09/465,592  
Inventors: Culver et al.  
Filing date: Dec. 17, 1999

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Docket No.: NANO-01000US0  
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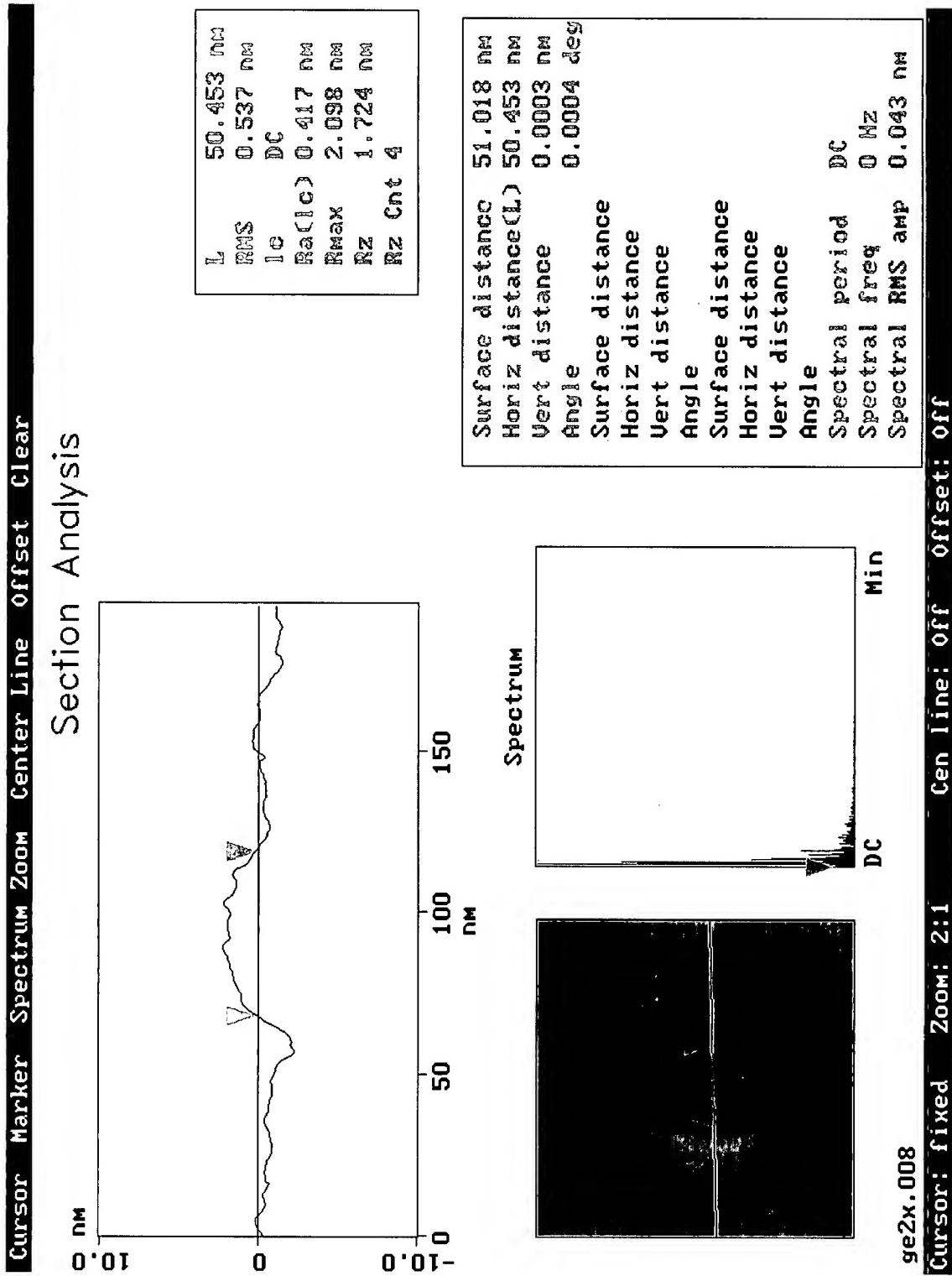
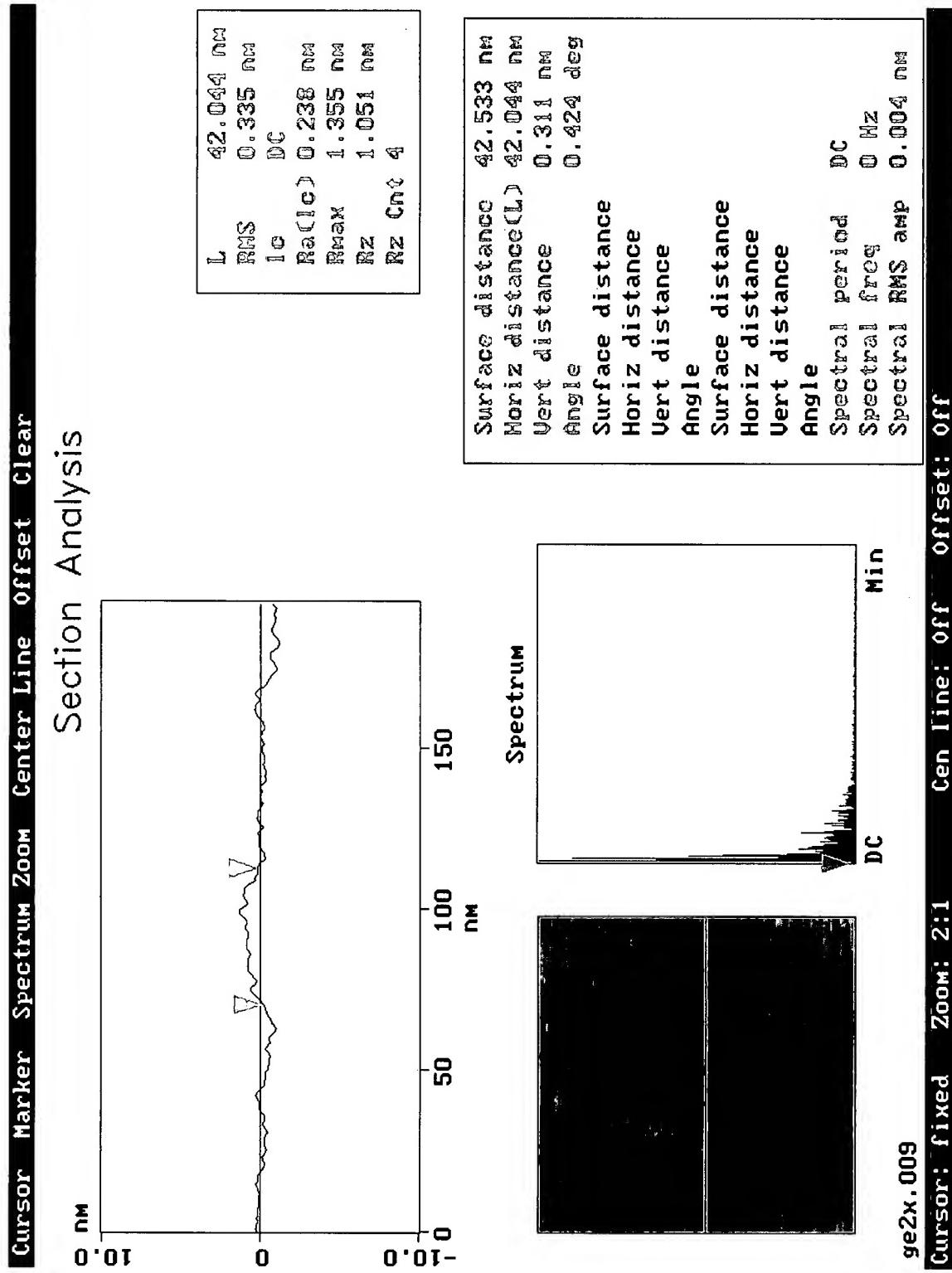


Figure 42C

Title: Devices and Methods of Detecting Movement Between Media and Probe  
Tip in a Probe Data Storage System  
Application No.: 09/465,592  
Inventors: Culver et al.  
Filing date: Dec. 17, 1999

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Title: Devices and Methods of Detecting Movement Between Media and Probe

Tip in a Probe Data Storage System

Application No.: 09/465,592

Attorney: Michael Robbins

Inventors: Culver et al.

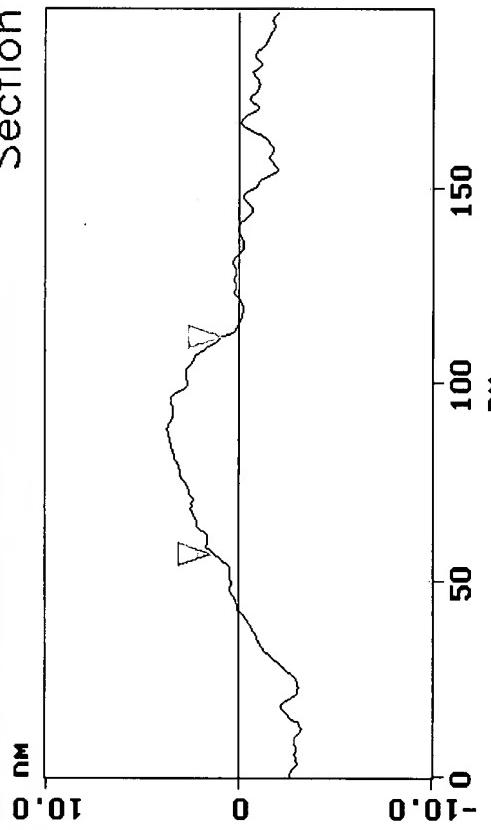
Docket No.: NANO-01000US0

Filing date: Dec. 17, 1999

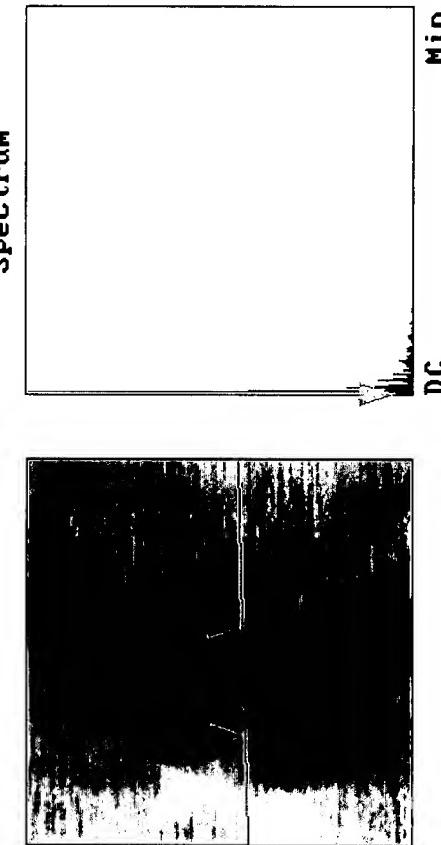
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Cursor Marker Spectrum Zoom Center Line offset Clear

## Section Analysis



### Spectrum



ge2x.010

Cursor: fixed Zoom: 2:1 - Cen line: off offset: off

Min

DC

Max

Angle

Surface distance

Horiz distance

Vert distance

Angle

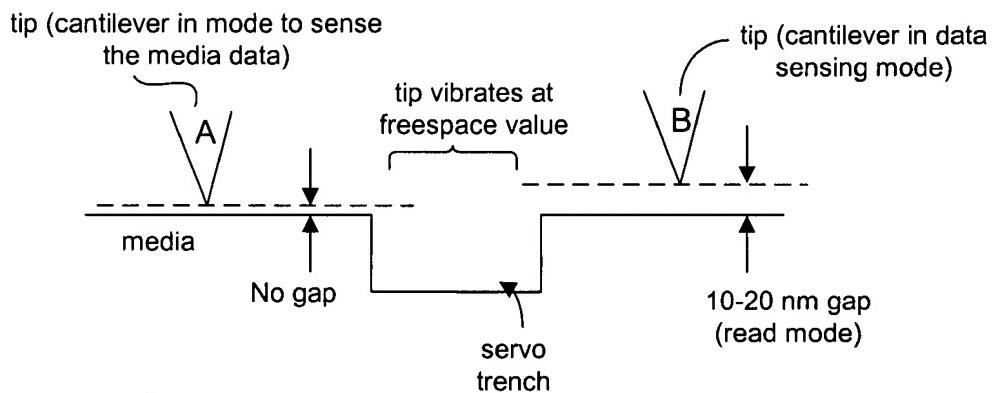


Figure 44

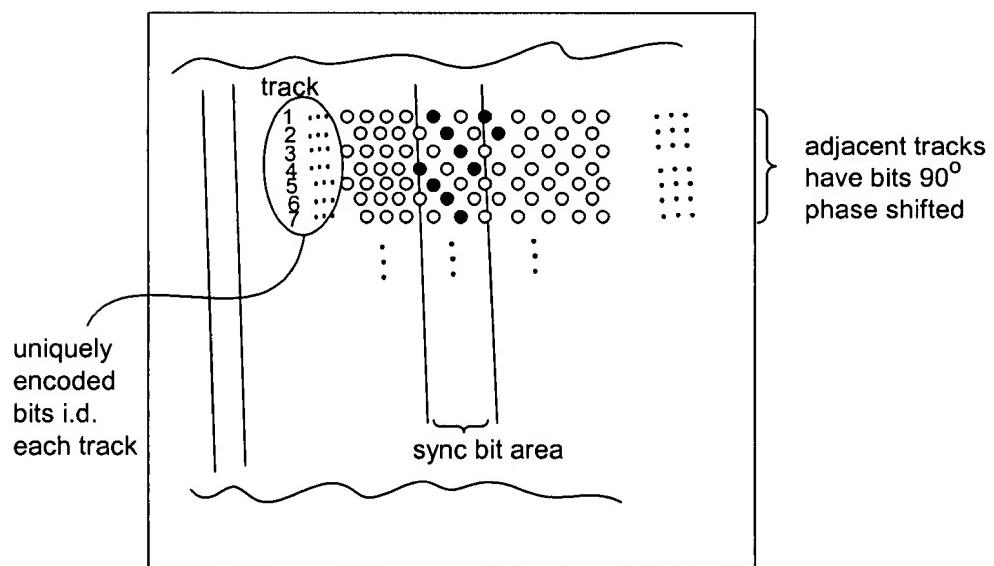


Figure 43

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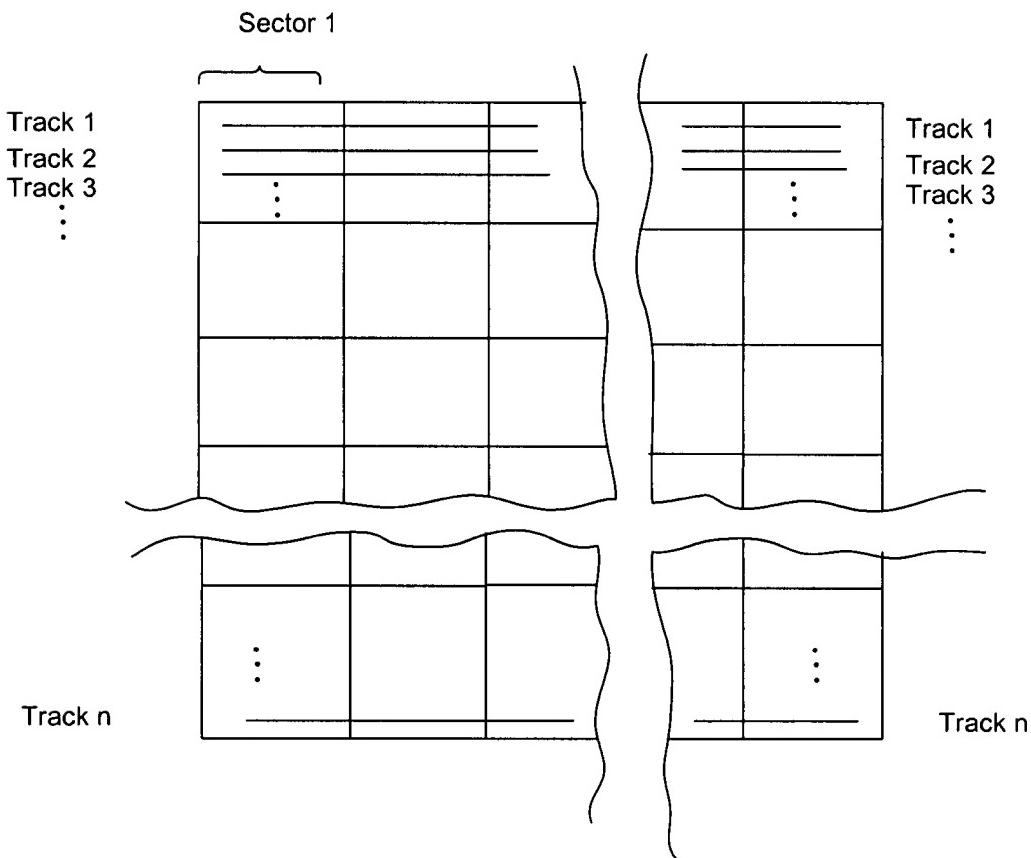


Figure 45

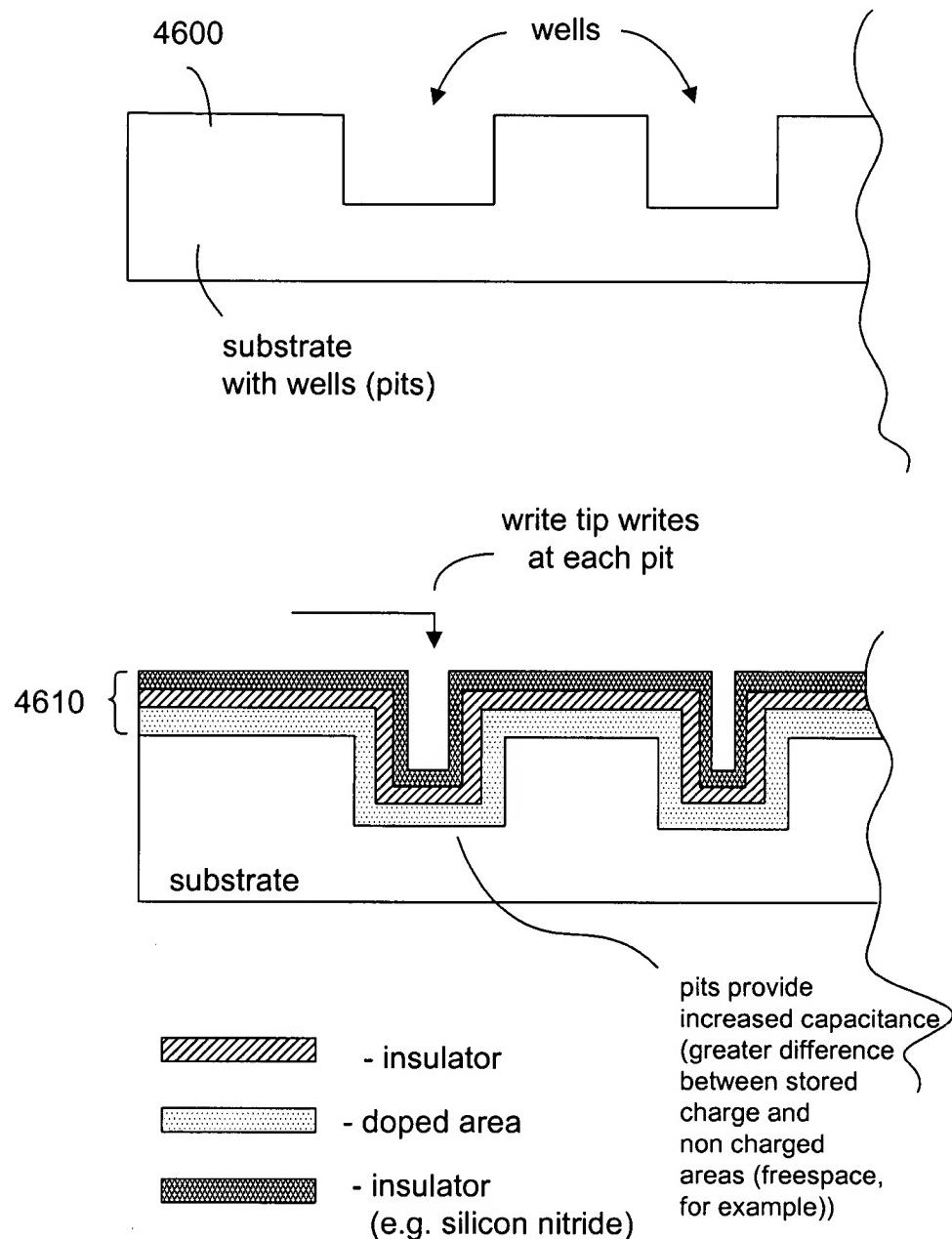


Figure 46

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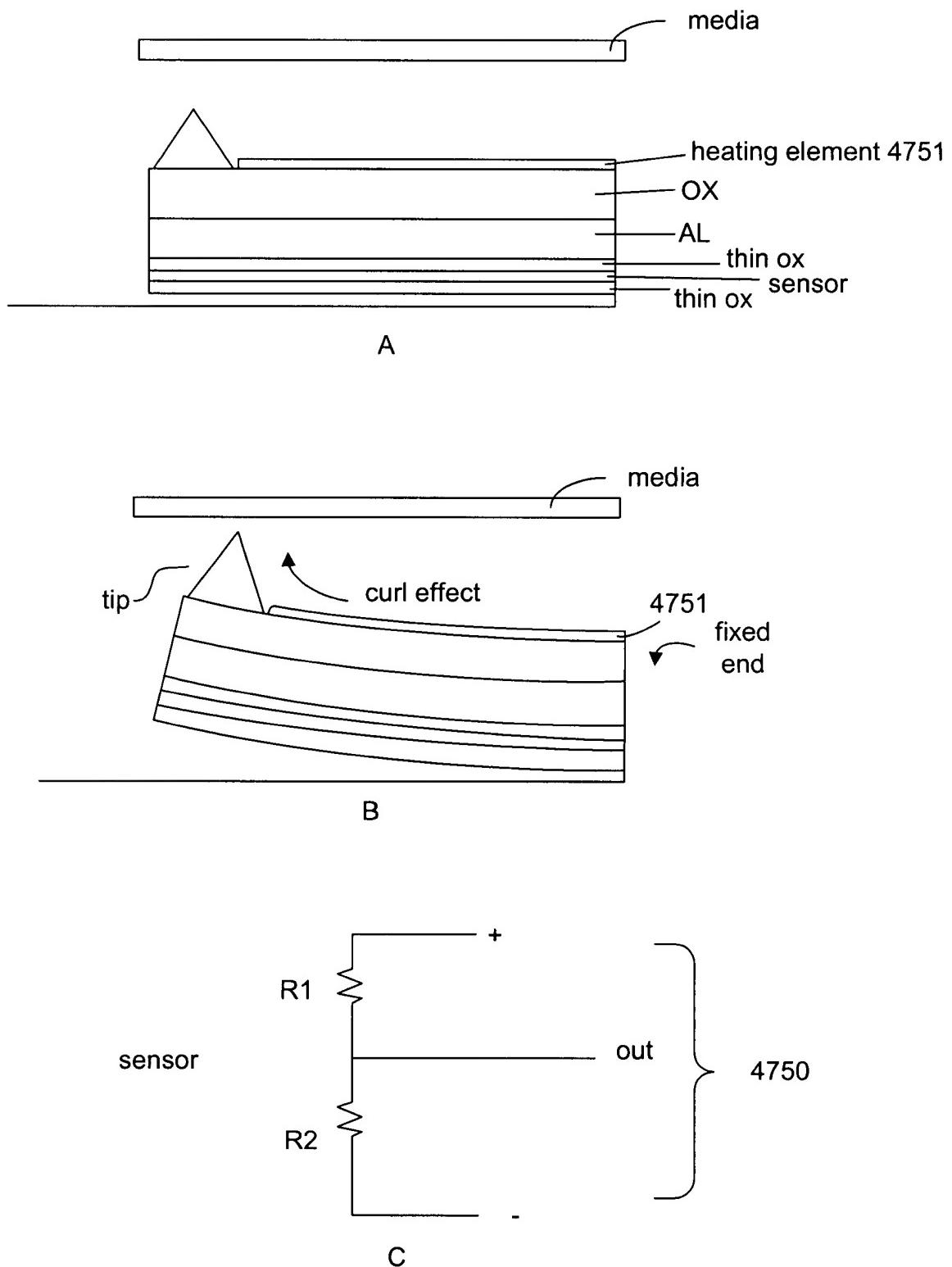


Figure 47

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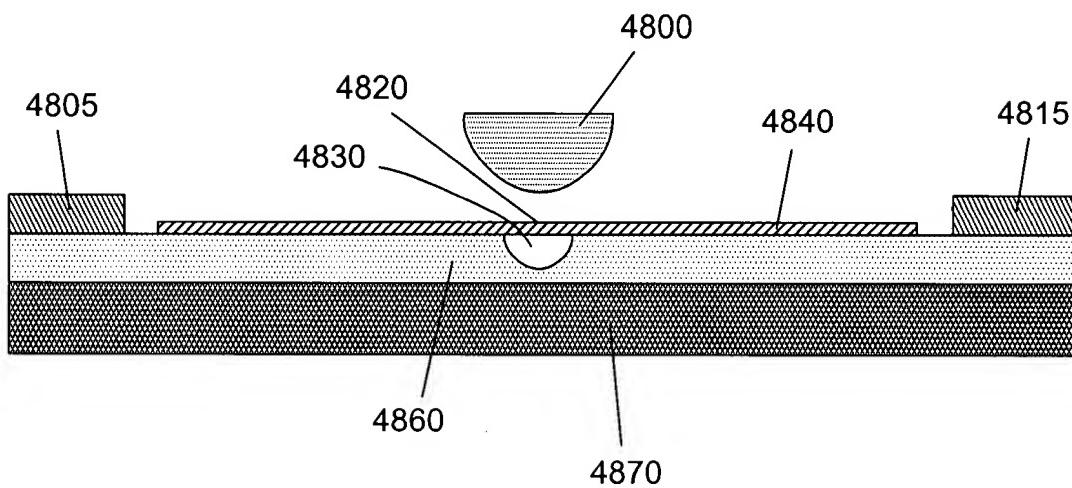


Figure 48

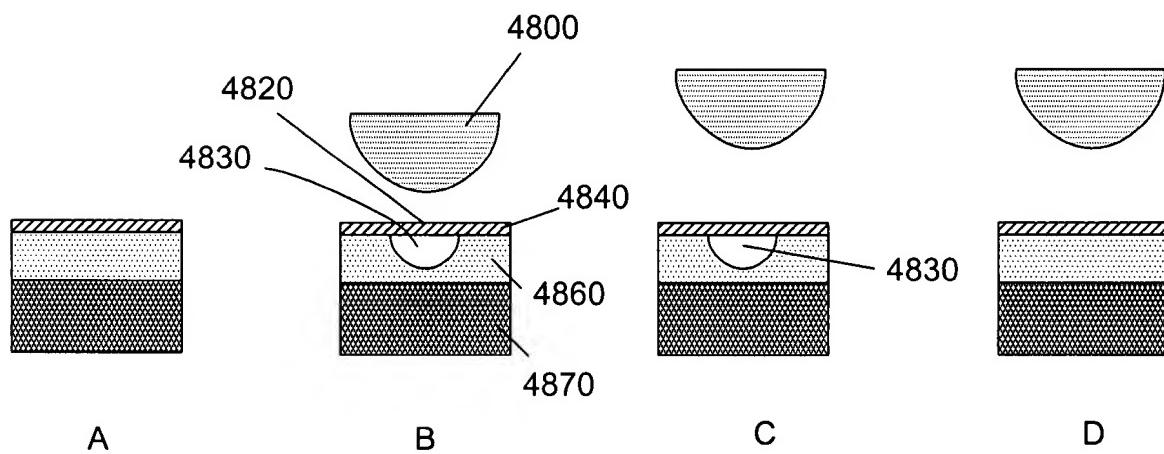


Figure 49

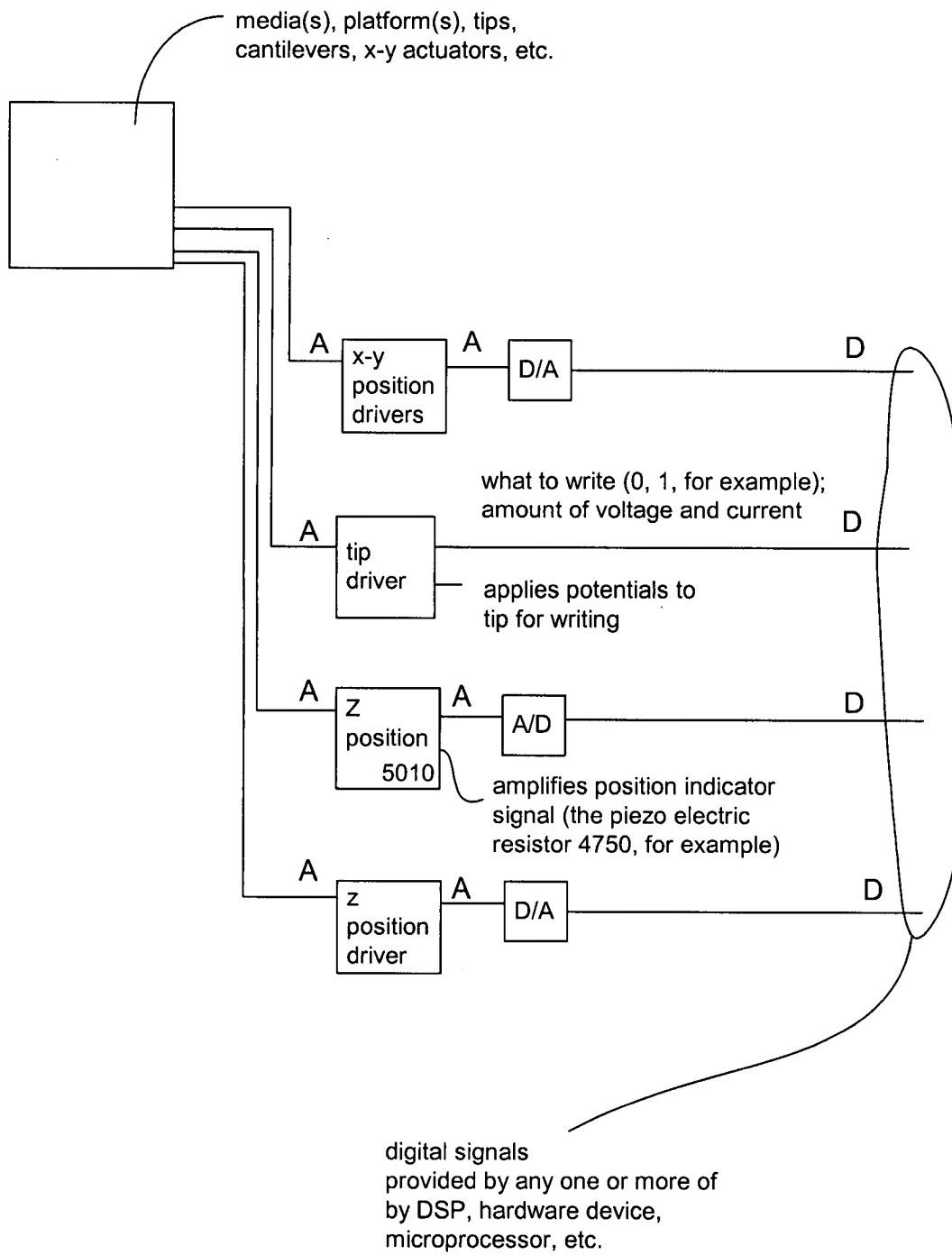


Figure 50